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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/736,349	12/14/2000	Elizabeth Adleberg Brodsky	AUS920000510US1	8921
47959 7590 03/21/2008 IBM AUSTIN (ANTHONY ENGLAND) C/O LAW OFFICE OF ANTHONY ENGLAND PO BOX 5307 AUSTIN, TX 78763-5307				
EXAMINER				
BARQADLE, YASIN M				
ART UNIT		PAPER NUMBER		
2153				
MAIL DATE		DELIVERY MODE		
03/21/2008		PAPER		

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/736,349  
Filing Date: December 14, 2000  
Appellant(s): BRODSKY ET AL.

\_\_\_\_\_  
Anthony V.S. England  
Reg. No. 35,129  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 12/17/2007 appealing from the Office action mailed 11/16.2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,301,614	Najork	10-2001
6,449,636	Kredo	09-2002
6,735,169	Albert	05-2004
6,026,413	Challenger	02-2000
6,748,418	Yoshida	06-2004

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

*The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:*

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1,4, 9, 10,12, 17, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Najork et al. (U.S. Patent Number 6,301,614, hereinafter "Najork") in view of Kredo et al. (U.S. Patent Number 6,449,636, hereinafter "Kredo")

In referring to claim 1, Najork shows substantial features of the claimed invention, including:

Querying a web site server by a crawler program, wherein at least one page of the web site has a reference for executing by a browser to produce an address for a next page; parsing such a reference from one of the web pages by the crawler program and sending the reference to an applet running in the browser: *"The thread then downloads the document corresponding to the URL, and processes the document (162).. That processing may include indexing the words in the document so as to make the document accessible via a search engine. However, the only processing of the document that is relevant to the present discussion is that the main procedure identifies URL's in the downloaded document that are candidates for downloading and processing (step 162). Typically, these URL's are found in hypertext links in the document being processed."* (Najork, col. 4, line 62 – col. 5, line 4)

- Determining the address for the next page by the browser responsive to the reference and sending the address to the crawler:

*"The **web** crawler **thread determines the** URL of the **next document to be downloaded** (step 160), typically **by** retrieving it from **a queue data structure** (not **shown**)."* (Najork, col. 4, lines 59-62)

However, Najork does not explicitly show the reference is specified by script. Nonetheless this feature is well known in the art and would have been an obvious addition to the system disclosed by Najork as evidenced by Kredo. In analogous art, Kredo discloses a system for creating a dynamic data file from collected and filtered web pages, Kredo shows: *"The use of the invention in concert with Web search software is quite similar to the previously-described usages. The processing is as follows. See FIG. 7. As a part of its overall task, Web indexing spider with the proposed editor integrated 125, compiles Web references to the term 'Nortel'. Among many other references, spider 125 locates Web pages 15 and 131, notes their URLs, and uses its integrated editor to process the source documents 20 and 136 to create scripts 140 and 141 for finding the term 'Nortel' on each page. Spider 125 stores each script with its URL*

*and a generated identifier in Web index 145 for the search engine 155. When the user executes a search for 'Nortel' using script-capable browser 150 and search engine 155, search engine 155 selects all index entries for 'Nortel' and formats them as search results 160 for browser 150 use. Browser 150 displays the formatted results as a Web page 170, with the term 'Nortel' prominently placed in each result. "* (Kredo, col. 5, lines 27-45. See also figs. 5 & 7; col. 3, lines 8-26)

Giving the teaching of Kredo, a person of ordinary skill in the art would have readily recognized the desirability and the advantage of modifying Najork by employing the dynamic data file creation system of Kredo in order to collect and display, on a single page, a substantial number of items of information taken on a real-time basis from many Web pages in many different locations. For a Web user, this eliminates the task of performing such collection on a manual, page-by-page basis [col. 7, lines 25-63].

In referring to claim 9, Najork shows substantial features of the claimed invention, including:

- First instructions for querying a web site server by a crawler program, wherein at least one page of the web site has a reference for executing by a browser to produce an address for a next page; second instructions for parsing such a reference from one of the web pages by the crawler program and sending the reference to an applet running in the browser: *Najork, col. 4, line 62 – col. 5, line 4* (see full quote above)

- Third instructions for determining the address for the next page by the browser responsive to the reference and sending the address to the crawler:

*Najork, col. 4, lines 59-62* (see full quote above)

However, Najork does not explicitly show the reference is specified by script. Nonetheless this feature is well known in the art and would have been an obvious addition to the system disclosed by Najork as evidenced by Kredo

In analogous art, Kredo discloses a system for creating a dynamic data file from collected and filtered web pages, Kredo shows: "*The use of the invention in concert with Web search software is quite similar to the previously-described usages. The processing is as follows. See FIG. 7. As a part of its overall task, Web indexing spider with the proposed editor integrated 125, compiles Web references to the term 'Nortel'. Among many other references, spider 125 locates Web pages 15 and 131, notes their URLs, and uses its integrated editor to process the source documents 20 and 136 to create scripts 140 and 141 for finding the term 'Nortel' on each page. Spider 125 stores each script with its URL and a generated identifier in Web index 145 for the search engine 155. When the user executes a search for 'Nortel' using script-capable browser 150 and search engine 155, search engine 155 selects all index entries for 'Nortel' and formats them as search results 160 for browser 150 use. Browser 150 displays the formatted results as a Web page 170, with the term 'Nortel' prominently placed in each result.*" (Kredo, col. 5, lines 27-45. See also figs. 5 & 7; col. 3, lines 8-26) Giving the teaching of Kredo, a person of ordinary skill in the art would have readily recognized the desirability and the advantage of modifying Najork by employing the dynamic data file creation system of Kredo in order to collect and display, on a single page, a substantial number of items of information taken on a real-time basis from many Web pages in many different locations. For a Web user, this eliminates the task of performing such collection on a manual, page-by-page basis [col. 7, lines 25-63].

In referring to claim 17, Najork shows substantial features of the claimed invention, including:

- A processor connected a network:  
Najork, Fig. 1 shows a processor 106 connected to a network 110
- A storage device connected to the processor and the network; the storage device is for storing a program for controlling the processor:

Najork, Fig. 1 shows a storage device 118 storing web crawler program 140

- Querying a web site server by the crawler, wherein at least one page of the web site has a reference for executing by the browser to produce an address for a next page; parsing such a reference from one of the web pages and sending the reference to an applet running in the browser:

*Najork, col. 4, line 62 – col. 5, line 4 (see full quote above)*

- Determining the address for the next page by the browser responsive to the reference and sending the address to the crawler:

*Najork, col. 4, lines 59-62 (see full quote above)*

However, Najork does not explicitly show the reference is specified by script. Nonetheless this feature is well known in the art and would have been an obvious addition to the system disclosed by Najork as evidenced by Kredo. In analogous art, Kredo discloses a system for creating a dynamic data file from collected and filtered web pages, Kredo shows: " *The use of the invention in concert with Web search software is quite similar to the previously-described usages. The processing is as follows. See FIG. 7. As a part of its overall task, Web indexing spider with the proposed editor integrated 125, compiles Web references to the term 'Nortel'. Among many other references, spider 125 locates Web pages 15 and 131, notes their URLs, and uses its integrated editor to process the source documents 20 and 136 to create scripts 140 and 141 for finding the term 'Nortel' on each page. Spider 125 stores each script with its URL and a generated identifier in Web index 145 for the search engine 155. When the user executes a search for 'Nortel' using script-capable browser 150 and search engine 155, search engine 155 selects all index entries for 'Nortel' and formats them as search results 160 for browser 150 use. Browser 150 displays the formatted results as a Web page 170, with the term 'Nortel' prominently placed in each result.* " (Kredo, col. 5, lines 27-45. See also figs. 5 & 7; col. 3, lines 8-26)



Giving the teaching of Kredo, a person of ordinary skill in the art would have readily recognized the desirability and the advantage of modifying Najork by employing the dynamic data file creation system of Kredo in order to collect and display, on a single page, a substantial number of items of information taken on a real-time basis from many Web pages in many different locations. For a Web user, this eliminates the task of performing such collection on a manual, page-by-page basis [col. 7, lines 25-63].

2. Claims 2, 10, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Najork in view of Kredo and in further view of Albert et al. (U.S. Patent Number 6,735,169, hereinafter "Albert"). Although Najork in view of Kredo shows substantial features of the claimed invention, Najork in view of Kredo does not show a resolver file indicating the IP address of a proxy server as the address of the web site. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Najork in view of Kredo as evidenced by Albert.

In analogous art, Albert discloses cascading multiple services on a *forwarding* agent. Albert, Fig. 3A shows a client **304** sees proxy **302** as the web site 310

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Najork in view of Kredo so as to use resolver file indicating the IP address of a proxy server as the address of the web site, such as taught by Albert, in order to provide load balancing for the web site.

In referring to claims 4, 12, and 20, Kredo shows selecting non-hypertext-link parameters to dynamically generate web pages (figs. 5 and 7; col. 5 5, lines 27-45 and col. 6, lines 14-65)

3. Claims 5-6, 13-14, and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Najork in view of Kredon and in further view of Challenger et al. (U.S. Patent Number 6,026,413, hereinafter "Challenger").

In referring to claims 5, 13, and 21, although Najork in view of Kredon shows substantial features of the claimed invention, including the method and apparatus of claims 1, 9, and 17 (see 103 rejections above), Najork in view of Kredon does not show caching dynamically generated web pages. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Najork in view of Kredon as evidenced by Challenger.

In analogous art, Challenger discloses determining how changes to underlying data affect cached objects. Challenger shows processing the server generated web pages to generate corresponding processed versions of the web pages, so that the processed versions can be served in response to future queries, reducing dynamic generation of web pages by the server: Challenger, Fig. 1C shows the caching of dynamically generated web pages and their dependencies.

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Najork in view of Kredon so as to cache dynamically generated web pages, such as taught by Challenger, in order to increase the speed in which previously viewed web pages are accessed.

In referring to claims 6, 14, and 22, Najork in view of Kredon and in further view of Challenger shows,

- The system of claims 5, 13, and 21 (see 103 rejection above)
- At least a first such server generated web page has included in it an operation that would cause the server to dynamically generate a second web page if the first page were used to generate further requests to the server, and removing the operation from the first server generated web

page and replacing the operation with a reference to a version of another of the server generated web pages:

Challenger, Fig. IC shows the caching of dynamically generated web pages and their dependencies. Said dependencies used to replace the original references to web pages.

7. Claims 7, 15, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Najork in view of Kredo and in further view of Challenger et al. (U.S. Patent Number 6,026,413, hereinafter "Challenger"). Najork shows substantial features of the claimed invention, including querying a web site server by a crawler program responsive to references from one web page to another in the web site, wherein the queries are for causing the server to generate web pages, at least one of the web pages being dynamically generated: *Najork, col. 4, line 62 – col. 5, line 4* (see full quote above) However, Najork does not explicitly show the reference is specified by script. Nonetheless this feature is well known in the art and would have been an obvious addition to the system disclosed by Najork as evidenced by Kredo.

In analogous art, Kredo discloses a system for creating a dynamic data file from collected and filtered web pages, Kredo shows: "*The use of the invention in concert with Web search software is quite similar to the previously-described usages. The processing is as follows. See FIG. 7. As a part of its overall task, Web indexing spider with the proposed editor integrated 125, compiles Web references to the term 'Nortel'. Among many other references, spider 125 locates Web pages 15 and 131, notes their URLs, and uses its integrated editor to process the source documents 20 and 136 to create scripts 140 and 141 for finding the term 'Nortel' on each page. Spider 125 stores each script with its URL and a generated identifier in Web index 145 for the search engine 155. When the user executes a search for 'Nortel' using script-capable browser 150 and search engine 155, search engine 155 selects all index entries*

*for 'Nortel' and formats them as search results 160 for browser 150 use. Browser 150 displays the formatted results as a Web page 170, with the term 'Nortel' prominently placed in each result. " (Kredo, col. 5, lines 27-45. See also figs. 5 & 7; col. 3, lines 8-26)*

Giving the teaching of Kredo, a person of ordinary skill in the art would have readily recognized the desirability and the advantage of modifying Najork by employing the dynamic data file creation system of Kredo in order to collect and display, on a single page, a substantial number of items of information taken on a real-time basis from many Web pages in many different locations. For a Web user, this eliminates the task of performing such collection on a manual, page-by-page basis [col. 7, lines 25-63].

In analogous art, Challenger discloses determining how changes to underlying data affect cached objects. Challenger shows processing the server generated web pages to generate corresponding processed versions of the web pages, so that the processed versions can be served in response to future queries, reducing dynamic generation of web pages by the server: Challenger, Fig. IC shows the caching of dynamically generated web pages and their dependencies. Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Najork in view of Kredo so as to cache the dynamically generated web pages thereby replacing forms that generate dynamic requests with static ones, such as taught by Challenger, in order to increase the speed in which previously viewed web pages are accessed.

8. Claims 3, 11 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Najork in view of Kredo in further view of Albert and in further view of Yoshida et al. (U.S. Patent Number 6,748,418, hereinafter "Yoshida"). Although Najork in view of Kredo in further view of Albert shows

substantial features of the claimed invention, including the system of claims 11 and 19 (see 102 rejection above), Najork in view of Kredo in further view of Albert does not show adding an onload attribute to one of the web pages by the proxy. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Najork in view of Kredo in further view of Albert as evidenced by Yoshida.

In analogous art, Yoshida discloses a technique for permitting collaboration between web browsers and adding content to HTTP messages bound for web browsers. Yoshida shows adding an onload attribute to one of the web pages by the proxy:

*"The HTTP message editor 123 specifies the script or help HTML to be displayed by referring to the help DB 151 and the script DB 1 53 based on the HTTP message delivered by 15 the HTTP message checker 125 and the rank and inserts the following program written in JavaScript into the HTTP message.*

```
function openScript(url) {  
    window.open(url, "help_window");  
}  
<body onLoad="openScript(\"High_Level_Script.html\" ">  
</body>"(Yoshida, col. 10, lines 52-64)
```

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Najork in view of Kredo in further view of Albert so as to add an onload attribute to one of the web pages a proxy, such as taught by Yoshida, in order to allow the web crawler to know when the page is fully loaded.

### **(10) Response to Argument**

Regarding claims 1,9 and 17, the Appellant argues "the references do not teach or suggest parsing a reference from one of the web pages by a crawler program

and sending the reference to an applet running in a browser nor do the references teach or suggest determining the address for the next page by the browser executing the reference and sending the address to the crawler.” (See pages 9-14).

The Examiner respectfully disagrees. Regarding “parsing a reference from one of the web pages by a crawler program and sending the reference to an applet running in a browser”, Najork teaches parsing hypertext links in a downloaded document (web page) by a web crawler “*the main procedure identifies URL's in the downloaded document that are candidates for downloading and processing (step 162). Typically, these URL's are found in hypertext links in the document being processed.*” (Najork, col. 4, line 62 – col. 5, line 4. see steps 160 and 162 of fig. 4). Najork also teaches “The thread then downloads the document corresponding to the URL, and processes the document (162)” (col. 4, lines 59-66). Najork clearly teaches URL processing procedure 142 executed by threads 130 running on browser not shown (web page document having hypertext links when executed downloading referenced URL implies the presence of a web browser where the procedure 142 executed by threads 130 exist) .

Regarding the Appellant’s argument of “determining the address for the next page by the browser executing the reference and sending the address to the crawler.” Najork teaches “A web page containing hypertext links to other web pages generally refers to those pages by their URL's. Links in a web page may refer to web pages that are stored in the same or different host computers” (col. 1, lines 28-34). Najork further teaches identifying such URL's in the downloaded document where the URL's are found in hypertext links (reference) in the web document (see col. 5, lines 1-8). Najork in fig. 4 steps 170 to 174 teaches invoking the URL processing procedure and adding identified URLs to a list of URL's provided to the crawler for scheduling to download (col. 6, lines 10-21).

In other words the referenced URLs that are not already known to the web crawler are added to the list provided to the web crawler for scheduling to download. Hence Najork clearly teaches the argued limitation.

In regard to Appellant's argument that "Najork does not teach parsing a reference (such as a reference having that a script for producing an address for a next page) and sending the reference to an applet running in a browser, as claimed."

The examiner notes that Kredo is relied upon to teach the feature of the reference being specified by a script. Kredo shows: "*Among many other references, spider 125 locates Web pages 15 and 131, notes their URLs, and uses its integrated editor to process the source documents 20 and 136 to create scripts 140 and 141 for finding the term 'Nortel' on each page. Spider 125 stores each script with its URL and a generated identifier in Web index 145 for the search engine 155. When the user executes a search for 'Nortel' using script-capable browser 150 and search engine 155, search engine 155 selects all index entries for 'Nortel' and formats them as search results 160 for browser 150 use. Browser 150 displays the formatted results as a Web page 170, with the term 'Nortel' prominently placed in each result.*" (Kredo, col. 5, lines 27-45. See also figs. 5 & 7; col. 3, lines 8-26). In this regard the Appellant must look the references as a whole for teaching the claimed invention.

In regard to Appellant's argument that "the references do not teach or suggest a proxy and a web site server have different IP addresses, but a resolver file indicates they are the same" (page 14, third paragraph). Examiner notes Najork in view of Albert show the argued limitation. For example, Najork shows an intermediate connection such a router (proxy) col. 2, lines 64-65 and Web server 112 inherently with different unique IP address. However, Najork does not show a resolver file indicating the IP address of a proxy server as the address

of the web site. In analogous art, Albert discloses cascading multiple services on a *forwarding* agent. Albert, Fig. 3A shows a client 304 sees forwarding (proxy) 302 as the web site 310 where forwarding agent 302 perform NAT (Network Address Translation) "Forwarding agents may forward packets using NAT or may use another method of sending packets to the selected real machine" col. 11, lines 31-63 and col. 6-45).

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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Examiner, Art Unit 2153

Conferees:  
/Glenton Burgess/

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